

### REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 2-8 and 20-28 are pending in the present application. Claims 2 and 21 are amended by the present amendment.

In the outstanding Office Action, Claims 2, 7, and 20-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka (U.S. Patent No. 5,808,973) in view of Ito et al. (U.S. Patent No. 6,304,527 B1, herein “Ito”) and He et al. (U.S. Patent No. 5,986,995, herein “He”); Claims 3, 4, and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, He, and Kobayashi et al. (U.S. Patent No. 4,840,922, herein “Kobayashi”); Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, He, and Hatakoshi et al. (“Polarization Dependence Analysis of Optical Loss in Small-Aperture Metal Waveguides for Near-Field Optics,” International Symposium on Optical Memory, 2000, herein “Hatakoshi”); Claims 6 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, He, and Mononobe et al. (WO 98/10296, herein “Mononobe”); Claim 5 was rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, He, and Kann et al. (“Heating Mechanism in a Near-Field Optical System”, Applied Optics, Vol. 36, No. 24, herein “Kann”); and Claims 25-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, He, and Ohuchida (U.S. Patent No. 5,231,620).

The outstanding Office Action indicates at page 7, in the Conclusion section, that the independent claims would distinguish over the applied art if amended to recite the term “closer to,” consistent with the description of Figure 28B in the specification at page 42, lines 6-9. In view of that indication, independent Claims 2 and 21 have been amended to recite that an optical light collecting unit shifts a peak of a distribution of a light intensity of a

converged light “from a first position to a second position, the second position being closer to the magnetic pole than the first position.” The claim amendments reflect the suggestion of the outstanding Office Action and find support in the specification at page 35, lines 3-8, page 39, lines 3-14, and page 41, line 31 to page 42, line 23. No new matter has been added.

Regarding the rejection of Claims 2, 7, and 20-24 under 35 U.S.C. § 103(a) as unpatentable over Tanaka, Ito, and He, that rejection is respectfully traversed for the following reasons.

Briefly recapitulating, amended Claim 2 is directed to a thermally-assisted magnetic recording head that includes, *inter alia*, an optical light collecting unit that shifts a peak of a distribution of a light intensity of a converged light from a first position to a second position closer to a magnetic pole than the first position. In a non-limiting example, Figures 28A and 28B show that the peak of the distribution of the light intensity is shifted closer to the magnetic pole 40 by the optical light collecting unit.

The thermally-assisted magnetic recording head of independent Claims 2 and 21 advantageously shifts the peak of the light distribution closer to the magnetic pole to enhance “the efficiency of using the light,” as disclosed in the specification at page 42, lines 6-16.

The outstanding Office Action relies on Tanaka and Ito to disclose various features of the magnetic recording head of Claims 2 and 21, except the optical light collecting unit that shifts the peak of the distribution of the light intensity of the converged light. The outstanding Office Action further relies on He for disclosing the optical light collecting unit lacking in Tanaka and Ito.

The outstanding Office Action indicates at page 4, first two lines, that an optical light collecting unit of He inherently shifts a peak of a distribution of a light intensity to a magnetic pole. However, He shows in Figure 3 that a laser beam 135 impinges on a central

face 130 of a transparent body 115, then traverses the transparent body 115 to further impinge upon a bottom reflective surface 105 of the same transparent body 115, then the laser beam 135 is reflected by the bottom reflective surface 105 back through the transparent body 115 to a peripheral reflector 132, then the laser beam is reflected on the peripheral reflector 132 and also diffracted by a peripheral diffractive-reflective surface 133, then the reflected beam 135A passes again through the transparent body 115 to finally be focused to a focal point 162, which is located on a central axis P, as specifically disclosed by He at column 4, lines 29-33. However, He does not teach or suggest that the focal point of the reflected laser beam 135A can be shifted from the central axis P closer to a magnetic pole.

Therefore, the device of He is not capable of shifting a peak of a distribution of a light intensity from a first position to a second position closer to a magnetic pole than the first position, as recited by amended Claims 2 and 21. On the contrary, as shown in Figures 3, 4, 7, and 8, the device of He produces the peak of the light distribution always on the central axis P and does not shift that position closer to the magnetic pole.

Accordingly, it is respectfully submitted that independent Claims 2 and 21 and each of the claims depending therefrom patentably distinguish over Tanaka, Ito, and He, either alone or in combination.

Regarding the remaining rejections of Claims 3-6, 8, and 25-28 under various combinations of Tanaka, Ito, He, Kobayashi, Hatakoshi, Mononobe, Kann, and Ohuchida, Applicants respectfully traverse those rejections for the following reasons.

As discussed above, none of Tanaka, Ito, He, and any combination of these references teaches or suggests the claimed optical light collecting unit. In addition, none of Kobayashi, Hatakoshi, Mononobe, Kann, and Ohuchida overcomes the deficiencies of Tanaka, Ito, and

He discussed above. Further, dependent Claims 3-6, 8, and 25-28 depend from independent Claims 2 and 21, which are believed to be allowable as noted above.

Accordingly, it is respectfully submitted that dependent Claims 3-6, 8, and 25-28 are also allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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